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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Satoru FUJITA et al.
Title: DISTRIBUTED APPLICATION
CONTROL SYSTEM, CONTROL
METHOD AND A PROGRAM
Appl. No.: 09/695,195
Filing Date: 10/25/2000
Examiner: L. T. Jacobs
Art Unit: 2157

CERTIFICATE OF MAILING

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

I hereby certify that the following paper(s) and/or fee along with any attachments referred to or identified as being attached or enclosed are being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.8(a) on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450.

1. Information Disclosure Statement
2. PTO SB08 form and 9 references included
3. Postcard

Respectfully submitted,

September 3, 2004
Date

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INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

RELEVANCE OF EACH DOCUMENT

The Examiner in the corresponding Japanese application stated:

Reasons

(Reason 1)

The inventions related to the following claims of the present application could have been easily invented by a person with ordinary knowledge of technology in the field to which the inventions belong prior to the filing of this application based on the inventions recited in the publications below, which had been distributed in Japan or abroad prior to the filing of this application, and therefore cannot receive a patent according to the stipulations of Article 29, Paragraph 2 of the Japan Patent Law.

Notes

List of Publications *Publication 1*

1. Satoru Fujita, "Mobile Agent Programming Using Mobidget," NEC Technical Reports, Vol. 52, No. 4, p. 53-56, NEC Corporation, 4/23/1999 (CS-NH-2000-00019-003)

Claims: 1, 11, 21-23

Publication: 1

Remarks:

Publication 1 relates to the “Mobidget” mobile distributed programming language wherein mobile agent-type programs and distributed computing programs can be constructed easily. This is an execution environment for agents, where at least one base providing machine-dependent computing resources, I/O services, etc., is provided in each computer, where the computing resources and space comprising multiple bases provided on the computers that are connected together via a network serve as the location for the operation of the Mobidget agent, and wherein the agent able to move easily to different bases according to program instructions, and communications can take place between said agents.

When the inventions according to Claims 1, 11, and 21–23 are compared to the invention described in Publication 1, the “mobile distributed programming language Mobidget” corresponds to the “script language” in the present invention, and because having various functions in the invention described in Publication 1 being executed in the form of agents is something which could be properly obtained by one skilled in the art, the inventions according to Claims 1, 11, and 21–23 of the present application could have been invented easily by one skilled in the art.

Claims: 7, 17

Publication: 1

Remarks:

It is natural that a machine-dependent application startup means would be provided on the computer, and having said means be executed in the form of an agent could be properly obtained by one skilled in the art, and thus the inventions according to Claims 7 and 17 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claims: 8, 18, 31

Publication: 1

Remarks:

The selection of the application to start depending on the type of file extension is a well-known technology in the technical field of general computing, and thus the inventions according to Claims 8, 18, and 31 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claims: 9, 19

Publication: 1

Remarks:

Page 56, lines 34 and 35 of Publication 1 describes how even agents that operate using multi-threading can be mobile, and thus it can be understood that the agents in the invention described in Publication 1 may be executed in parallel in multiple threads, and so using a script language to designate parallel execution could be inferred easily by one skilled in the art; thus the inventions according to Claims 9 and 19 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claims: 10, 20

Publication: 1

Remarks:

Page 54, lines 8–17 of Publication 1 describe how a single agent can exist distributed across multiple bases simultaneously, and, in this case, the “subagents” wherein the agent is divided up for multiple bases correspond to the “subshell agents” in the inventions according to Claims 10 and 20 in the present application, and thus the inventions according to Claims 10 and 20 of the present application could have been

invented easily by one skilled in the art based on the invention described in Publication 1.

Claim: 13

Publication: 1

Remarks:

In the invention according to Claim 13 of the present application, execution after referencing an agent repository path table to retrieve the application agent from the repository path is something to the extent of executing said application after referencing information that is required for executing said information and thus would be considered natural even in the invention described in Publication 1; consequently, the invention according to Claim 13 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claim: 15

Publication: 1

Remarks:

The generation of an application agent indirectly through a local service agent is a design item that could be used, as appropriate, by one skilled in the art, and thus the invention according to Claim 15 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claim: 16

Publication: 1

Remarks:

The issue of how to store information within the computer regarding applications that are operating outside is a design issue that could be used, as appropriate, by one skilled in

the art, and thus the invention according to Claim 16 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claim: 24

Publication: 1

Remarks:

The indication of a parallel execution process through parallel execution text in a script language, and the shell, etc., processing, as internal commands, processes that can be executed by internal commands of the shell itself, are both well-known technologies, and thus the invention according to Claim 24 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Claim: 28

Publication: 1

Remarks:

The generation of the number of threads required for parallel execution on a computer is a well-known technology, and counting the number of parallel execution [threads] is something which could be done as appropriate if necessary, thus the invention according to Claim 28 of the present application could have been invented easily by one skilled in the art based on the invention described in Publication 1.

Note that, at this point, no prior art invalidating the novelty or the inventive step has been found regarding the inventions in Claims 2–6, 12, 14, 25–27, 29, or 30.

(Reason 2)

The present application does not fulfill the stipulations of the Japan Patent Law, Article 36, Paragraph 6, Clause 2 in the description of the Scope of Patent Claims in the points described below.

Notes

A. The description in Claim 4 of “the current base of the aforementioned current directory” is not only unclear in terms of what the “current base” is, but also the relationship between the “current directory” and the “current base” is unclear.

The same is true for Claims 14, 27, 29, and 30, which contain the description, “current base.”

B. In Claim 15 there is a description that “said application agent is generated through a local service agent that assists in accessing the local resources on each computer,” but it is not certain what part “on each computer” is referencing.

C. The “*direikutori* storage table” in Claim 27 is a typographical error for “directory storage table.”

Consequently, the inventions in Claims 4–6, 15, 16, and 27 are unclear.

At this point, reasons for rejection have not been discovered for the inventions in any of the claims aside from the claims that are indicated in this notification of reasons for rejection. Notification of reasons for rejection will be provided if new reasons for rejection are discovered.

Record of Prior Art Literature Search Results

Fields Searched: IPC 7th Edition G06F 15/16–
15/177 G06F 9/46–9/54

Prior Art Literature *Reference 1–7*

1. Japanese Unexamined Patent Application Publication
2000-20487 (Japanese Patent Application H11-47025)

(Reference 5 in paragraph (0013) in the specification in the present application is probably referring to this document.)

2. Hideki Dai, et al., "The Current State of Mobile Agent Technology, and Issues for the Future," Computer Software, Vol. 16, No. 5, p. 2-13, Japan Society for Software Science and Technology, 9/16/1999 (CS-ND-2000-01297-001)

3. Fumio Hattori, "Agent Language," Computer Software, Vol. 14, No. 4, p. 3-12, Japan Software Materials Association, 7/15/1997 (CS-ND-1997, 00102-001)
4. Satoru Fujita, et al., "The Mobile Distributed Programming Language Mobidget: Language Specifications," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-301-1-302, 5U-1, Information Processing Society of Japan, 10/5/1998
5. Kazuya Koyama, et al., "Creating the Mobidget Mobile Distributed Bases," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-303-1-304, 5U-2, Information Processing Society of Japan, 10/5/1998
6. Hidehito Gomi, et al., "Mobidget Distributed Object Control," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-305-1-306, 5U-3, Information Processing Society of Japan, 10/5/1998
7. Chihiro Komatsu, et al.: "A cyclical search system for Mobidget," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-307-1-308, 5U-4, Information Processing Society of Japan, 10/5/1998

This Record of Prior Art Literature Search Results does not constitute a reason for rejection.

An English translation of the foreign-language documents is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language documents (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

STATEMENT

The undersigned hereby states in accordance with 37 CFR §1.97(e)(1) that each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to filing of this Statement.

The undersigned hereby states in accordance with 37 CFR §1.704(d) that each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR §1.56(c) more than thirty days prior to the filing of the information disclosure statement..

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date 3 September 04

By Rachel Corliss & 489

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: September 3, 2004 <i>(use as many sheets as necessary)</i>				Complete if Known		
				Application Number		09/695,195
				Filing Date		10/25/2000
				First Named Inventor		Satoru FUJITA
				Group Art Unit		2157
				Examiner Name		L. T. Jacobs
Sheet 1 of 1				Attorney Docket Number		029471-0145

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	6,496,871	B1	Jagannathan et al.	12/17/02	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office ³	Number ⁴	Kind Code ⁵ (if known)			
	A2	JP	2000-20487	A	NEC CORP	1/21/2000	Abs

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A3	Satoru Fujita, "Mobile Agent Programming Using Mobidiget," NEC Technical Reports, Vol. 52, No. 4, p. 53-56, NEC Corporation, 4/23/1999 (CS-NH-2000-00019-003)	
	A4	Hideki Dai, et al., "The Current State of Mobile Agent Technology, and Issues for the Future," Computer Software, Vol. 16, No. 5, p. 2-13, Japan Society for Software Science and Technology, 9/16/1999 (CS-ND-2000-01297-001)	
	A5	Fumio Hattori, "Agent Language," Computer Software, Vol. 14, No. 4, p. 3-12, Japan Software Materials Association, 7/15/1997 (CS-ND-1997, 00102-001)	
	A6	Satoru Fujita, et al., "The Mobile Distributed Programming Language Mobidiget: Language Specifications," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-301-1-302, 5U-1, Information Processing Society of Japan, 10/5/1998	
	A7	Kazuya Koyama, et al., "Creating the Mobidiget Mobile Distributed Bases," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-303-1-304, 5U-2, Information Processing Society of Japan, 10/5/1998	
	A8	Hidehito Gomi, et al., "Mobidiget Distributed Object Control," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-305-1-306, 5U-3, Information Processing Society of Japan, 10/5/1998	
	A9	Chihiro Komatsu, et al.: "A cyclical search system for Mobidiget," Compendium (1) of the 57th (2nd half, 1998) National Conference, p. 1-307-1-308, 5U-4, Information Processing Society of Japan, 10/5/1998	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.